

Viral Hemorrhagic Fever

What are viral hemorrhagic fevers?

Viral hemorrhagic fevers are a group of illnesses caused by viruses. These viruses live, for the most part, in rodents (e.g., rats and mice) and arthropods (e.g., mosquitoes and ticks). The host animal or insect, however, is unknown for some of these viruses, such as the Ebola and Marburg viruses. Viral hemorrhagic fevers affect multiple systems of the body and tend to cause hemorrhaging (bleeding). Five distinct families of viruses cause hemorrhagic fevers: arenaviruses, filoviruses, bunyaviruses, flaviviruses, and paramyxoviruses.

Who gets viral hemorrhagic fever?

Anyone can get a viral hemorrhagic fever, but it generally occurs in people living in or visiting areas with infected rodents or arthropods. Occasionally, people in other areas become infected when an infected rodent or arthropod has left its native habitat and entered a new area.

How are viral hemorrhagic fevers spread?

Most people get viral hemorrhagic fever through exposure to an infected rodent or arthropod. Viruses associated with arthropods are spread when a mosquito or tick bites a human. Viruses associated with rodents are spread through direct contact with rodent urine or feces; they are also spread when people breathe in particles from rodent urine or feces that have gotten into the air (e.g., from sweeping dirt containing dried urine or feces). Spread of viral hemorrhagic fever has also occurred when humans handle an infected animal. Some viral hemorrhagic fevers are spread from person to person through close contact with infected people or their body fluids or from contact with objects contaminated with infected body fluids.

What are the symptoms of viral hemorrhagic fever?

Specific symptoms vary by type of viral hemorrhagic fever, but initial symptoms often include fever, fatigue, dizziness, muscle aches, loss of strength, and exhaustion. Patients with severe cases of viral hemorrhagic fever often bleed under the skin, in internal organs or from body openings. Severely ill patients may also exhibit shock, problems with the nervous system, coma, and seizures. Some types of viral hemorrhagic fever are associated with kidney failure.

How soon after exposure do symptoms appear?

Symptoms may appear anywhere from days to weeks after exposure, depending on the type of viral hemorrhagic fever.

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How are viral hemorrhagic fevers diagnosed?

Viral hemorrhagic fevers are diagnosed through special laboratory tests conducted by the Centers for Disease Control and Prevention. Samples may be taken from the blood and various tissues. Testing is done only with prior consultation and would be coordinated through the Virginia Department of Health.

What is the treatment for viral hemorrhagic fever?

Patients receive supportive care for relief of symptoms. Certain antiviral medications have been effective in treating some patients with certain types of viral hemorrhagic fever.

How can viral hemorrhagic fever be prevented?

The best way to prevent viral hemorrhagic fevers is to avoid contact with infected rodents and arthropods. Person-to-person transmission can be reduced by avoiding close physical contact with infected people and their body fluids. Vaccines are available for the viral hemorrhagic fevers called yellow fever and Argentine hemorrhagic fever. Infection control techniques include isolating infected individuals and wearing protective clothing.

Could viral hemorrhagic fevers be used for bioterrorism?

Yes. Many hemorrhagic fever viruses are considered possible bioterrorism agents because they are highly infectious, can be aerosolized (made airborne), and would cause serious illness in the population.

How can I get more information about viral hemorrhagic fever?

- 1) If you have concerns about viral hemorrhagic fever, contact your healthcare provider.
- 2) Call your local health department. A directory of local health departments is located at <http://www.vdh.virginia.gov/LHD/index.htm>.
- 3) Visit the Centers for Disease Control and Prevention website at <http://www.cdc.gov/vhf/virus-families/index.html>.